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| U.S. DEPARTMENT OF COMMERCE, PATENT AND TRADEMARK OFFICE  |   | DATE: June 16, 2005                                  |
| TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE<br>(DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371   |   | U.S. Application No. (if known):<br><b>10/539635</b> |
| INTERNATIONAL APPLICATION NO.:<br>PCT/JP2003/007577   | INTERNATIONAL FILING DATE:<br>June 13, 2003 | PRIORITY DATE CLAIMED:<br>December 16, 2002          |
| TITLE OF INVENTION: <b>SEMICONDUCTOR MULTI-LAYERED STRUCTURE WITH NON-UNIFORM QUANTUM DOTS, AND LIGHT EMITTING DIODE, SEMICONDUCTOR LASER DIODE AND SEMICONDUCTOR LIGHT AMPLIFIER USING THE SAME AS WELL AS METHOD OF MAKING THEM</b>   |   |  |
| APPLICANT(S) FOR DO/EO/US: <b>Yoshikazu TAKEDA et al.</b>   |   |  |
| Applicant hereby submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |   |  |
| <p>1. <u>XX</u> This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.</p> <p>2. <u>   </u> This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.</p> <p>3. <u>XX</u> This is an express request to begin national examination procedures (35 USC 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</p> <p>4. <u>XX</u> The US has been elected (Article 31).</p> <p>5. <u>XX</u> A copy of the International Application as filed (35 U.S.C. 371(c)(2)):</p> <p>a. <u>   </u> is transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <u>XX</u> has been transmitted by the International Bureau.</p> <p>c. <u>   </u> is not required, as the application was filed in the United States Receiving Office (RO/US)</p> <p>6. <u>XX</u> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).</p> <p>a. <u>XX</u> is attached hereto.</p> <p>b. <u>   </u> has been previously submitted under 35 U.S.C. 154(d)(4).</p> <p>7. <u>XX</u> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))</p> <p>a. <u>   </u> are transmitted herewith (required only if not transmitted by the International Bureau).</p> <p>b. <u>   </u> have been transmitted by the International Bureau.</p> <p>c. <u>   </u> have not been made; however, the time limit for making such amendments has NOT expired.</p> <p>d. <u>XX</u> have not been made and will not be made.</p> <p>8. <u>   </u> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <u>XX</u> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</p> <p>10. <u>XX</u> An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p> <p>ITEMS 11. TO 20. BELOW CONCERN OTHER DOCUMENT(S) OR INFORMATION INCLUDED:</p> <p>11. <u>XX</u> An Information Disclosure Statement under 37 CFR 1.97 and 1.98 together with the international search report, PTO/SB/08 and 15 documents.</p> <p>12. <u>XX</u> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.<br/>ASSIGNEE NAME AND ADDRESS: <b>JAPAN SCIENCE AND TECHNOLOGY AGENCY, Kawaguchi-shi, Japan</b><br/>Please publish the assignee data with the application.</p> <p>13. <u>XX</u> A preliminary amendment.</p> <p>14. <u>   </u> An Application Data Sheet under 37 C.F.R. 1.76</p> <p>15. <u>   </u> A substitute specification.</p> <p>16. <u>   </u> A change of power of attorney and/or address letter.</p> <p>17. <u>   </u> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 C.F.R. 1.821 - 1.825.</p> <p>18. <u>   </u> A second copy of the published international application under 35 U.S.C. 154(d)(4).</p> <p>19. <u>   </u> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</p> <p>20. <u>XX</u> Other items or information: 32 sheets of drawings and Form PCT/IB/306</p> |   |  |

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| 21. <u>XX</u> The following fees are submitted:<br><br><div style="display: flex; justify-content: space-between;"> <div>           Basic National Stage Fee<br/>           National Stage Search Fee<br/>           National Stage Examination Fee<br/> <br/>           ENTER APPROPRIATE BASIC FEE AMOUNT =         </div> <div>           \$ 300.00<br/>           \$ 500.00<br/>           \$ 200.00<br/> <br/>           \$ 1,000.00         </div> </div> | CALCULATIONS | PTO USE ONLY |
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| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)). |  |  |  |
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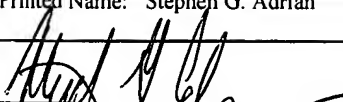
  

| CLAIMS   | NUMBER FILED | NUMBER EXTRA | RATE        |               |    |
|--|--------------|--------------|-------------|---------------|----|
| TOTAL  | 32 -20 =     | 12           | X \$ 50.00  | \$ 600.00     |    |
| INDEPENDENT  | 7 - 3 =      | 4            | X \$ 200.00 | \$ 800.00     |    |
| Multiple dependent claims(s) (if applicable)   |              |              | + \$360.00  | \$ 360.00     |    |
| TOTAL OF ABOVE CALCULATIONS =  |              |              |             | \$ 2,760.00   |    |
| National Stage Application Size Fee-for each additional 50 sheets that exceeds 100 sheets \$ 250.00.   |              |              |             |               |    |
| Reduction by 1/2 for filing by small entity, if applicable. (Note 37 CFR 1.9, 1.27, 1.28).   |              |              |             |               |    |
| SUBTOTAL =   |              |              |             | \$ 2,760.00   |    |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)). +                      |              |              |             |               |    |
| TOTAL NATIONAL FEE =   |              |              |             | \$ 2,760.00   |    |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property + |              |              |             | \$ 40.00      |    |
| TOTAL FEES ENCLOSED =  |              |              |             | \$ 2,800.00   |    |
|  |              |              |             | Amount to be: |    |
|  |              |              |             | refunded      | \$ |
|  |              |              |             | charged       | \$ |

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| a. <u>XX</u>   | A check in the amount of \$ 2,800.00 to cover the above fees is enclosed. (\$300.00 for basic national stage fee; \$500.00 for national stage search fee; \$200.00 for national stage examination fee, \$800.00 for 4 additional independent claims; \$600.00 for 12 additional claims; \$360.00 for multiple dependent claims and \$40.00 for the assignment recordation fee). |
| b.   | Please charge my Deposit Account No. 50-2866 in the amount of \$ to cover the above fees. (A duplicate copy of this sheet is enclosed.)   |
| c. <u>XX</u>   | The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-2866.  |
| NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed to request that the application be restored to pending status. |   |

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| Send All Correspondence To:   | WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP<br>1250 Connecticut Avenue, N.W.<br>Suite 700<br>Washington, D.C. 20036<br>CUSTOMER No. 38834 |
| Typed or Printed Name: Stephen G. Adrian  | Reg. No.: 32,878  |
| Signature  | Date: June 16, 2005   |

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